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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,766	12/29/2003	Daryl Carvis Cromer	RPS920030243US1	6471
25299	7590	07/15/2005	EXAMINER	
IBM CORPORATION PO BOX 12195 DEPT YXSA, BLDG 002 RESEARCH TRIANGLE PARK, NC 27709			KOVAL, MELISSA J	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 07/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/747,766

Applicant(s)

CROMER ET AL.

Examiner

Melissa J. Koval

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 is/are allowed.
- 6) ☒ Claim(s) 10-16 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 17-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 11 is objected to because of the following informalities: Claim 11 depends from itself. Applicant probably intended for claim 11 to depend from claim 11.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Cho et al.
U.S. Patent 6,913,360 B2.

Claim 10 sets forth: A method for producing a demanded image using a digital mirror device (DMD), comprising:

directing a light beam at the DMD (See Figure 3 of '360 B2, for example and column 1, lines 19 through 27.); and

altering the color of the light beam without using a color wheel (See color light separator 120 comprising first through fourth dichroic filters 120B, 120C, 120G and 120R.).

Claim 13 is rejected under 35 U.S.C. 102(e) as being anticipated by Oehlbeck et al. U.S. Patent 6,778,290 B2.

Claim 13 sets forth: "A projector comprising:
means for generating a demanded image (See LCD modulator 23.); and
non-rotating translationally-moving means juxtaposed with the means for generating for altering the color of a light beam entering the means for generating (See column 9, lines 36 through 55, column 1, lines 10 through 36, and column 5, lines 46 through 64 of '290 B2.)."

Claim 13 is rejected under 35 U.S.C. 102(e) as being anticipated by Cho et al. U.S. Patent 6,913,360 B2.

Claim 13 sets forth: "A projector, comprising (See Figure 3 of '567 B2, for example.):

means for generating a demanded image (See light valve 27 as shown in Figure 3.); and

non-rotating translationally-moving means juxtaposed with the means for generating for altering the color of a light beam entering the means for generating (Also see Figures 4A, 4B and 5. Refer to column 5, lines 4 through 21, and column 6, lines 39 through 51.)."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-12, 14-16, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oehlbeck et al. U.S. Patent 6,778,290 B2.

Oehlbeck teaches all of the elements of claim 10, however '290 B2 does not specifically make use of the terminology "digital light projector (DLP)". See column 9, lines 36 through 55, column 1, lines 10 through 36, and column 5, lines 46 through 64 of '290 B2. The apparatus 10 taught in '290 B2 is clearly a digital device. Also see column 2, lines 26 through 38.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a DMD or micro-mirror device as taught in the BACKGROUND OF THE INVENTION of '290 B2 in place of the LCD taught in the preferred embodiment of '290 B2. The motivation for one having ordinary skill in the art to make such a modification would be to use a single reflective light modulator resulting in a smaller projector.

Claims 14, 15 and 16 are rejected for the same reasons already applied to claim 10.

With respect to claim 20 see photosensitive medium 22 and column 5, lines 47 through 64 and see column 1, lines 10 through 36 and column 6, lines 29 through 39.

With respect to claim 22, see column 9, lines 36 through 55.

With respect to claim 11 again refer to photosensitive medium 22, film gate 46 and supply and take up reels shown in Figure 1, for example.

With respect to claim 12, refer to column 8, lines 33 through 50.

With respect to claim 21, see supply and take-up reels and the motion controller shown in Figure 1.

Allowable Subject Matter

Claims 1 through 9 are allowed.

Claims 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed May 23, 2005 have been fully considered but they are not persuasive. With respect to applicant's remarks directed to claim 13 on page 7 of his response, any patentable distinction between the claimed invention and the teaching of Oehlbeck et al. '290 B2 is not clearly set forth in claim 13. The examiner has tried to further clarify the rejection of claim 13 under Oehlbeck et al. in the remarks set forth in the rejection under 35 USC 102(e) above. New art is applied.

Similarly, with respect to applicant's remarks directed to claim 10 on page 8 of his response, any patentable distinction between the claimed invention and the teaching

of Oehlbeck et al. '290 B2 is not clearly set forth in claim 10. The examiner has tried to further clarify the rejection of claim 10 under Oehlbeck et al. in the remarks set forth in the rejection under 35 USC 103 above. New art is applied.

Applicant's arguments on page 7 that Oehlbeck et al. teach away from the use of a DMD are not persuasive because the concept of resolution, the reason given in the teaching for not using a DMD, is not set forth in the plain language of applicant's claims.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa J. Koval whose telephone number is (571) 272-2121. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJK



Handwritten signature of Melissa Jan Kova, dated 1/15/18.